

REMARKS

This Application has been reviewed carefully in light of the Final Office Action mailed October 13, 2004 ("Final Office Action"). Claims 13-38 were pending in the Application and stand rejected. Applicant respectfully requests reconsideration and favorable action in this case.

Claim Rejections - 35 U.S.C. § 103(a)

The Examiner rejects Claims 13-38 under 35 U.S.C. §103(a) as being unpatentable over various combinations of references. To establish obviousness of a claimed invention under § 103, all claim limitations must be taught or suggested by the prior art. M.P.E.P. § 2143.03. Furthermore, the Examiner must show some teaching, suggestion, or motivation to combine or modify the references either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. M.P.E.P. § 2143.01. Using the inventor's disclosure as a blueprint for piecing together references without showing evidence of a suggestion, teaching, or motivation to combine the references is the essence of improper hindsight analysis.¹

Claims 13-15, 19-22, 28-33, and 37

The Examiner rejects Claims 13-15, 19-22, 28-33, and 37 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,389,024, which issued to Ghai et al. ("Ghai"), in view of U.S. Patent No. 6,256,293, which issued to Gerstel et al. ("Gerstel"), and U.S. Patent No. 6,097,515, which issued to Pomp et al. ("Pomp").

¹ In *In re Dembiczak*, 175 F.3d 994 (Fed. Cir. 1999), the Federal Circuit reversed a finding of obviousness by the Board of Patent Appeals and Interferences, explaining that evidence of a suggestion, teaching, or motivation to combine is essential to avoid impermissible hindsight reconstruction of an applicant's invention:

Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is *rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references*. Combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability—the essence of hindsight.

Id. at 999 (emphasis added) (citations omitted).

Applicant's independent Claim 13 recites:

A method for associating routing parameters for a switch with line cards serviced by the switch, comprising:

programming a redirection memory to associate a routing parameter set in a routing memory for a switch with a first line card, the routing parameter set including a plurality of routing parameters to be provided to the switch to service the first line card; and

in response to an event initiating activation of a second line card in place of the first line card, reprogramming the redirection memory to associate the routing parameter set in the routing memory with the second line card, the routing parameters to be provided to the switch to service the second line card.

Applicant respectfully submits that *Ghai*, *Gerstel*, and *Pomp*, whether taken alone or in combination, fail to teach or suggest every element of this Claim.

Among other aspects of Claim 13, the *Ghai-Gerstel-Pomp* combination fails to teach or suggest:

in response to an event initiating activation of a second line card in place of the first line card, reprogramming the redirection memory to associate the routing parameter set in the routing memory with the second line card, the routing parameters to be provided to the switch to service the second line card.

The Examiner admits that *Ghai* fails to teach the recited element. *Final Office Action*, page 3. However, the Examiner attempts to combine aspects of *Gerstel* and *Pomp* to produce the recited element.

First, the Examiner states that *Gerstel* "teaches an event initiating activation of a second line card in place of the first line card." *Final Office Action*, page 3. However, *Gerstel* proposes hardwiring various ports of different line cards together to solve the problem of failed line cards. *Gerstel*, Col. 3, lines 4-42. Hardwiring ports of different line cards together to solve the problem of failed line cards fails to teach or suggest "in response to an event initiating activation of a second line card in place of the first line card, reprogramming the redirection memory to associate the routing parameter set in the routing memory with the second line card, the routing parameters to be provided to the switch to service the second line card." In particular, hardwiring ports of different line cards together fails to teach or suggest "reprogramming the redirection memory."

In an attempt to cure the deficiencies of *Gerstel*, the Examiner introduces *Pomp* and states:

Pomp discloses a switchable network unit which permits automatic activation and configuration of different line cards, i.e. second line card, by the controller, which in turn causes provisioning data to be loaded to provide the necessary information the controller needs to route data to this new, i.e. second, line card.

Final Office Action, page 3. However, the Examiner's summary of *Pomp* highlights that reference's deficiencies with regard to teaching or suggesting the language of Claim 13.

Pomp discloses that when a customer activates an additional telephone line, an operations control center supplies two things to a controller in a switchable optical network unit: instructions and provisioning data. *Pomp*, Col. 15, lines 38-41. The instructions identify an available line card and cause the controller to activate that line card. *Id.*, Col. 15, lines 41-43. The provisioning data includes routing information that the controller needs to route signals to and from the newly activated line card:

The provisioning data, which this controller 179 stores in memory, provides various information that the controller needs to route signals to and from the relevant line card, e.g. [sic] to control the TSI to provide routing and associated multiplexing and demultiplexing of digital signals coming from and going to the second POTS line card.

Pomp, Col. 15, lines 42-48. Thus, in *Pomp*, when a new line card is activated the controller loads an entirely new set of routing information. However, loading an entirely new set of routing information when a new line card is activated altogether fails to teach or suggest “in response to an event initiating activation of a second line card in place of the first line card, reprogramming the redirection memory to associate the routing parameter set in the routing memory with the second line card, the routing parameters to be provided to the switch to service the second line card.”

In addition, Applicant respectfully submits that there is no teaching, suggestion, or motivation to combine or modify *Ghai*, *Gerstel*, and *Pomp* either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. Furthermore, Applicant respectfully submits that the Examiner has improperly used the inventor's disclosure as a blueprint for piecing together the references, the essence of hindsight reconstruction.

For at least these reasons, Applicant respectfully requests the Examiner to reconsider and withdraw the rejection of Claim 13. For reasons analogous to those discussed above with regard to Claim 13, Applicant also respectfully requests the Examiner to reconsider and withdraw the rejection of independent Claims 20, 28, and 31.

Claims 14, 15, and 19 depend from Claim 13; Claims 21 and 22 depend from Claim 20; Claims 29 and 30 depend from Claim 28; and Claims 32, 33, and 37 depend from Claim 31. Thus, because they depend from independent Claims shown above to be allowable over *Ghai* in view of *Gerstel* and *Pomp*, Applicant respectfully requests the Examiner to reconsider and withdraw the rejection of Claims 14, 15, 19, 21, 22, 29, 30, 32, 33, and 37.

Claims 16-18, 23-25, and 34-36

The Examiner rejects Claims 16-18, 23-25, and 34-36 under 35 U.S.C. § 103(a) as being unpatentable over *Ghai*, *Gerstel* and *Pomp* in view of U.S. Patent No. 5,598,409, which issued to Madonna et al. (“*Madonna*”). Claims 16-18, 23-25, and 34-36 depend from Claims 13, 20, and 31 respectively, which are shown above to be allowable over *Ghai* in view of *Gerstel* and *Pomp*. The introduction of *Madonna* fails to provide the elements of Applicant’s Claims 13, 20, and 31 not shown by *Ghai* in view of *Gerstel* and *Pomp*.

In addition, Applicant respectfully submits that there is no teaching, suggestion, or motivation to combine or modify *Ghai*, *Gerstel*, *Pomp*, and *Madonna* either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. Furthermore, Applicant respectfully submits that the Examiner has improperly used the inventor’s disclosure as a blueprint for piecing together the references, the essence of hindsight reconstruction.

Thus, for at least these reasons, Applicant respectfully requests the Examiner to reconsider and withdraw the rejection of Claims 16-18, 23-25, and 34-36.

Claim 26

The Examiner rejects Claim 26 under 35 U.S.C. § 103(a) as being unpatentable over *Ghai* in view of U.S. Patent No. 5,721,819, which issued to Galles et al. (“*Galles*”), *Madonna*, and U.S. Patent No. 6,147,988, which issued to Bartholomew et al. (“*Bartholomew*”).

Applicant's independent Claim 26 recites:

A synchronous switch for a telecommunications node, comprising:
a time slot interchanger (TSI) operable to switch traffic between time slots for a plurality of line cards;
an instruction memory for the TSI, the instruction memory comprising a plurality of instruction sets, each instruction set including a plurality of instructions operable to be provided to the TSI to switch time slots of an associated line card;
a redirection memory operable to selectively associate each instruction set of the instruction memory with a disparate one of the line cards; and
a controller operable to reprogram the redirection memory to change associations of the instruction sets with the line cards.

Applicant respectfully submits that *Ghai*, *Galles*, *Madonna*, and *Bartholomew*, whether taken alone or in combination, fail to teach or suggest every element of this Claim.

Among other aspects of Claim 26, the *Ghai-Galles-Madonna-Bartholomew* combination fails to teach or suggest “a controller operable to reprogram the redirection memory to change associations of the instruction sets with the line cards.” As teaching this element, the Examiner states that “Galles teaches a controller to reprogram the redirection memory in the event of a fault occurring.” *Final Office Action*, page 9. Applicant respectfully disagrees. The portions of *Galles* that the Examiner cites to support this statement regard determining “new routes” and “alternative paths” around faults between nodes on a network. *Galles*, Col. 11, lines 55-65; Col. 21, line 64-Col. 22, line 6. However, determining new routes and alternative paths around faults between nodes on a network fails to teach or suggest “a controller operable to reprogram the redirection memory to change associations of the instruction sets with the line cards.” Furthermore, *Ghai*, *Madonna*, and *Bartholomew* fail to provide this missing element.

In addition, Applicant respectfully submits that there is no teaching, suggestion, or motivation to combine or modify *Ghai*, *Galles*, *Madonna*, and *Bartholomew* either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. Furthermore, Applicant respectfully submits that the Examiner has improperly used the inventor’s disclosure as a blueprint for piecing together the references, the essence of hindsight reconstruction.

For at least these reasons, Applicant respectfully requests the Examiner to reconsider and withdraw the rejection of independent Claim 26.

Claim 27

The Examiner rejects Claim 27 under 35 U.S.C. § 103(a) as being unpatentable over *Ghai, Galles, Madonna, and Bartholomew* in view of *Gerstel*. Claim 27 depends from Claim 26, which is shown above to be allowable over *Ghai* in view of *Galles, Madonna, and Bartholomew*. The introduction of *Gerstel* fails to provide the elements of Applicant's Claim 26 not shown by *Ghai* in view of *Galles, Madonna, and Bartholomew*.

In addition, Applicant respectfully submits that there is no teaching, suggestion, or motivation to combine or modify *Ghai, Galles, Madonna, Bartholomew, and Gerstel* either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. Furthermore, Applicant respectfully submits that the Examiner has improperly used the inventor's disclosure as a blueprint for piecing together the references, the essence of hindsight reconstruction.

Thus, for at least these reasons, Applicant respectfully requests the Examiner to reconsider and withdraw the rejection of Claim 27.

Claim 38

The Examiner rejects Claim 38 under 35 U.S.C. § 103(a) as being unpatentable over *Ghai* in view of *Gerstel, Pomp, Madonna, and Bartholomew*.

Applicant's independent Claim 38 recites:

A method for associating routing parameters for a switch with line cards serviced by the switch, comprising:

programming a redirection memory to associate a routing parameter set in a routing memory for a switch with a first line card, the routing parameter set including a plurality of routing parameters to be provided to the switch to service the first line card;

in response to an event initiating activation of a second line card in place of the first line card, reprogramming the redirection memory to associate the routing parameter set in the routing memory with the second line card, the routing parameters to be provided to the switch to service the second line card;

programming the redirection memory to associate a second routing parameter set in the routing memory with the second line card, the second routing parameter set including a plurality of second routing parameters to be provided to the switch to service the second line card; and

in response to the event initiating activation of the second line card in place of the first line card, reprogramming the redirection memory to associate the second routing parameter set with the first line card, the second routing parameters to be provided to the switch to service the first line card;

wherein the event is a failure of the first line card, the routing parameters comprise instructions, the routing parameter set comprises an instruction set, the routing memory comprises an instruction memory, the switch comprises a synchronous switch, the synchronous switch is a time slot interchanger (TSI), and the redirection memory comprises a programmable table storing associations between line cards serviced by the switch and the routing parameter sets in the routing memory for the switch.

Applicant respectfully submits that *Ghai*, *Gerstel*, *Pomp*, *Madonna*, and *Bartholomew*, whether taken alone or in combination, fail to teach or suggest every element of this Claim.

Among other aspects of Claim 38, the *Ghai-Gerstel-Pomp-Madonna-Bartholomew* combination fails to teach or suggest:

in response to an event initiating activation of a second line card in place of the first line card, reprogramming the redirection memory to associate the routing parameter set in the routing memory with the second line card, the routing parameters to be provided to the switch to service the second line card;

and

in response to the event initiating activation of the second line card in place of the first line card, reprogramming the redirection memory to associate the second routing parameter set with the first line card, the second routing parameters to be provided to the switch to service the first line card.

The Examiner admits that *Ghai* fails to teach the recited elements. *Final Office Action*, page 12. However, the Examiner attempts to combine aspects of *Gerstel* and *Pomp* to produce the recited elements.

First, the Examiner states that *Gerstel* “teaches an event initiating activation of a second line card in place of the first line card.” *Final Office Action*, page 12. However, as

discussed above, *Gerstel* proposes hardwiring various ports of different line cards together to solve the problem of failed line cards. *Gerstel*, Col. 3, lines 4-42. Hardwiring ports of different line cards together to solve the problem of failed line cards fails to teach or suggest “in response to an event initiating activation of a second line card in place of the first line card, reprogramming the redirection memory to associate the routing parameter set in the routing memory with the second line card, the routing parameters to be provided to the switch to service the second line card.” Furthermore, hardwiring ports of different line cards together to solve the problem of failed line cards also fails to teach or suggest “in response to the event initiating activation of the second line card in place of the first line card, reprogramming the redirection memory to associate the second routing parameter set with the first line card, the second routing parameters to be provided to the switch to service the first line card.” In particular, hardwiring ports of different line cards together fails to teach or suggest “reprogramming the redirection memory.”

In an attempt to cure the deficiencies of *Gerstel*, the Examiner introduces *Pomp* and states:

Pomp discloses a switchable network unit which permits automatic activation and configuration of different line cards, i.e. [sic] second line card, by the controller, which in turn causes provisioning data to be loaded to provide the necessary information the controller needs to route data to this new, i.e. [sic] second, line card.

Final Office Action, page 12. However, the Examiner’s summary of *Pomp* highlights that reference’s deficiencies with regard to teaching or suggesting the language of Claim 38.

As discussed above, *Pomp* discloses that when a customer activates an additional telephone line, an operations control center supplies two things to a controller in a switchable optical network unit: instructions and provisioning data. *Pomp*, Col. 15, lines 38-41. The instructions identify an available line card and cause the controller to activate that line card. *Id.*, Col. 15, lines 41-43. The provisioning data includes routing information that the controller needs to route signals to and from the newly activated line card:

The provisioning data, which this controller 179 stores in memory, provides various information that the controller needs to route signals to and from the relevant line card, e.g. [sic] to control the TSI to provide routing and associated multiplexing and demultiplexing of digital signals coming from and going to the second POTS line card.

Pomp, Col. 15, lines 42-48. Thus, in *Pomp*, when a new line card is activated the controller loads an entirely new set of routing information. However, loading an entirely new set of routing information when a new line card is activated altogether fails to teach or suggest “in response to an event initiating activation of a second line card in place of the first line card, reprogramming the redirection memory to associate the routing parameter set in the routing memory with the second line card, the routing parameters to be provided to the switch to service the second line card.” Furthermore, loading an entirely new set of routing information when a new line card is activated also altogether fails to teach or suggest “in response to the event initiating activation of the second line card in place of the first line card, reprogramming the redirection memory to associate the second routing parameter set with the first line card, the second routing parameters to be provided to the switch to service the first line card.”

In addition, Applicant respectfully submits that there is no teaching, suggestion, or motivation to combine or modify *Ghai*, *Gerstel*, *Pomp*, *Madonna*, and *Bartholomew* either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. Furthermore, Applicant respectfully submits that the Examiner has improperly used the inventor’s disclosure as a blueprint for piecing together the references, the essence of hindsight reconstruction.

For at least these reasons, Applicant respectfully requests the Examiner to reconsider and withdraw the rejection of independent Claim 38.

CONCLUSION

Applicant has made an earnest attempt to place this case in condition for allowance. For the foregoing reasons, and for other reasons clearly apparent, Applicant respectfully requests full allowance of all pending claims. If the Examiner feels that a telephone conference or an interview would advance prosecution of this Application in any manner, the undersigned attorney for Applicant stands ready to conduct such a conference at the convenience of the Examiner.

Although no fees are believed to be due, the Commissioner is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 02-0384 of Baker Botts L.L.P.

Respectfully submitted,

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